

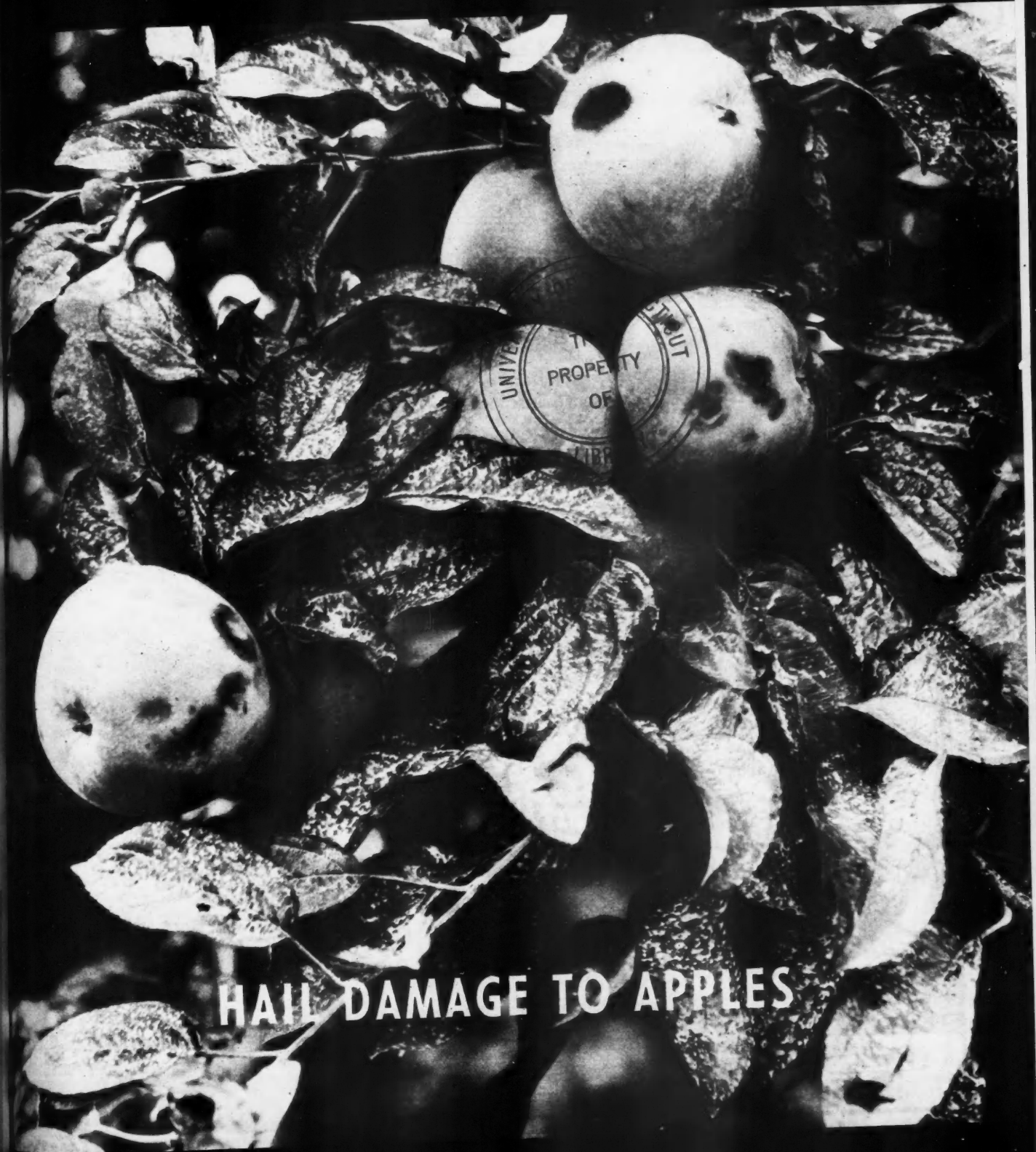
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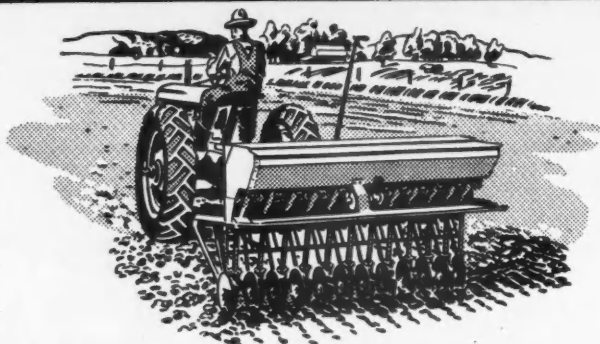
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DN-111.



HAIL DAMAGE TO APPLES

Get EXTRA TRACTION BAR LENGTH AT No Extra Cost

and YOU WILL GET EXTRA TRACTION, BETTER CLEANING and LONGER LIFE TOO!



FIRESTONE traction bars are built into the tread of a farm tractor tire to serve just one purpose. That purpose is to give traction.

Because the traction bar is the source of pulling power of tractor tires, it is obvious that *greater traction bar length gives greater traction.* By the same token, a *shortened traction bar design, such as the broken center, gives less traction.*

Firestone Ground Grip Tractor Tires provide up to 215 extra inches of traction bar length per tractor at no extra cost. And the bars are joined in the center to form a powerful, triple-braced, leakproof traction unit.

That's why farmers prefer tires built by Firestone, *the pioneer and pacemaker* in putting the farm on rubber.

Listen to the Voice of Firestone with Richard Crooks and the Firestone Symphony Orchestra, under the direction of Howard Barlow, Monday evenings, over N. B. C.

Firestone

GROUND GRIP TIRES

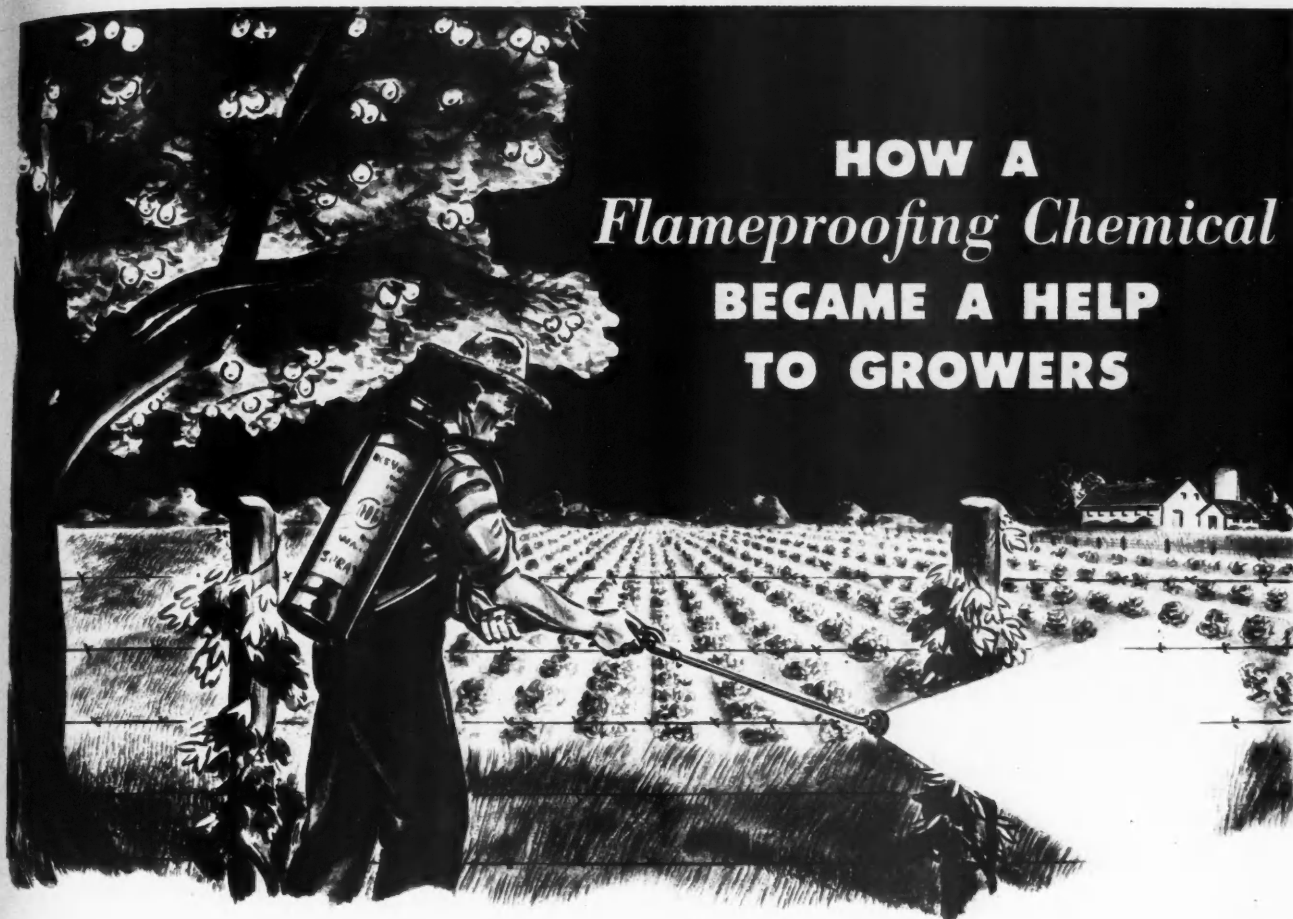
The Tire That Pulls Better Longer



Mr. Extra Traction represents the Extra Bar Length that gives Superior Pulling Power to Firestone GROUND GRIP TRACTOR TIRES

FIRESTONE PUT THE FARM ON RUBBER

Copyright, 1944, The Firestone Tire & Rubber Co.
Vol. 44, No. 5, AMERICAN FRUIT GROWER, published monthly by American Fruit Grower Publishing Co., 1370 Ontario St., Cleveland 13, Ohio.
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HOW A Flameproofing Chemical BECAME A HELP TO GROWERS

DU PONT RESEARCHERS were testing a new fire retardant—an industrial chemical that flameproofs fabric and paper—when they happened to discover that it killed growing plants when sprayed on their leaves. “Why wouldn’t this make a good weapon against troublesome weeds like poison ivy?” they wondered.

And now that they’ve finished their work, *it does.*

For this flameproofing chemical, ammonium sulfamate, has been tested and proved on many growing plants . . . and after certain modifications, put on the market under the trademark name “Ammate.” It’s now doing a great job of destroying weeds such as poison ivy and poison oak . . . helping growers by saving time and labor, both scarce today.

Worth special attention among Du Pont’s helps for growers are:

Copper-A, a *safe* fixed copper fungicide; “Sulfuron,” a microfine *wettable* sulfur; and “Fermate,” a promising new fungicide of high effectiveness, available now only for evaluation purposes.

There are many good Du Pont Pest Controls available now in adequate supply for essential needs. To help get the bigger, better yields, that are so urgently needed, *order today* from your Du Pont dealer. E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, Wilmington 98, Del.

HAVE YOU SEEN “SOLDIERS OF THE SOIL”?

In this interesting sound movie, Du Pont is telling the world your story . . . the role of America’s food producers in wartime. Free bookings now being arranged for farm groups nationwide. Write for illustrated folder. 2504 Nemours Building, Wilmington 98, Delaware.



FOR EFFECTIVE CROP PROTECTION
DU PONT
INSECTICIDES and FUNGICIDES



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

More FARMALLS This Year —But Still Not Enough for All

MANY MORE new Farmalls are being built this year than last. They are on their way to the farms of America, ready for the big food production job that lies ahead. But there still will not be enough to go around.

If you need a new tractor, you may be able to get one from the 1944 supply. If it means waiting, wait for the *all-purpose FARMALL*.

For 20 years the FARMALL tractor has led the way in power farming. For 20 years the FARMALL SYSTEM, a way of farming that combines tractor power and a *complete line of working tools to fit the tractor*, has enabled farmers to produce crops on an efficient, economical, time-saving basis. When you own a Farmall you have a tractor that

was designed from the implement end. Such a tractor, for one-man operation, is a blessing when farm help is at a premium.

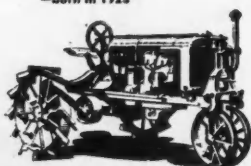
We're well into another planting and cultivating season. Our country is counting on Agriculture for another big harvest. The favored weapon in the fight for food is the FARMALL TRACTOR.

Your International Harvester dealer is doing his best to help you get the new farm equipment you need, and to keep your present equipment on the job. He's your supply man for the entire FARMALL SYSTEM.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue Chicago 1, Illinois

20 Years of FARMALL Progress

The original Farmall
—born in 1923



The original Farmall was designed as the *power half* of an implement-tractor unit. During 20 years of development, many machines have been added to the Farmall line. Today the exclusively Farmall mounted and direct-connected machines are known everywhere. With these, as well as with pull-behind and belt machines, tractor and equipment work together as a smooth-running *mechanized team*.

You can count on Farmall to lead the way in the future, just as it leads the way today.

Legume seeds are scarce. Your country needs them. Make plans now to save at least part of your hay crops for seed. **SAVE SEED FOR VICTORY!**



FARMALL'S 20th Anniversary

America's cars and trucks are "war workers" too, and registrations show

MORE CHEVROLETS ON THE JOB TODAY THAN ANY OTHER MAKE

More than ever
NEEDED

Serving War Workers

- Doctors • Farmers •
- Red Cross Activities
- Public Utilities
- Civilian Defense •
- Vital War Supplies •
- Food Suppliers

More than ever
DOING THE JOB

ONE
out of every
FOUR
cars and trucks now
running is a
Chevrolet

More than ever
THE LEADER



Serving America
on the working front with
**ECONOMICAL
TRANSPORTATION**



Serving America
on the fighting fronts with
**VOLUME FOR
VICTORY**

CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT, MICHIGAN

BUY MORE BONDS . . . SPEED THE VICTORY

Every Sunday Afternoon, GENERAL MOTORS SYMPHONY OF THE AIR, NBC Network

WHAT YOU NEED FOR CODLING MOTH CONTROL

WRITE FOR
FREE FOLDERS

Send name and
address of your
insecticide
dealer

S-W ARSENATE OF LEAD

S-W Arsenate of Lead is 98% pure Arsenate of Lead. It contains not less than 30% arsenious oxide and the least amount of water soluble arsenic, which results in maximum control of codling moth and many other insects that attack fruit and foliage.

S-W SPRALASTIC

The uniform and heavy deposit resulting from the use of S-W Spralastic will make the Arsenate of Lead you are using much more effective in the control of codling moth. Its use as a spreader and sticker actually causes three to four times more Arsenate of Lead to remain on the fruit by increasing the adhesive and spreading properties of the Arsenate of Lead particles and eliminating wasteful run-off, yet the deposit is easily removed in the washing process.

S-W SAFE-N-LEAD

S-W Safe-N-Lead completely neutralizes the water soluble arsenic found in Arsenates of Lead. When added to Arsenate of Lead in the spray tank, S-W Safe-N-Lead converts the water soluble arsenic into a stable compound which will not "burn" apple foliage, but stimulates the growth of healthy, green leaves.

S-W SUMMER MULSION

Years of successful use in the leading apple growing sections of this country have demonstrated the superiority of S-W Summer Mulsion as a spray to control the eggs of codling moth. Among its outstanding qualities are: quick breaking and high oil deposit.

S-W NICO-MULSION

S-W Nico-Mulsion is a combination of nicotine and white oil emulsion for use against codling moth late in the season, particularly on late varieties of apples that will not be washed. It is also recommended on summer varieties of apples in the place of Arsenate of Lead.

THE SHERWIN-WILLIAMS Co.
101 Prospect Ave. • Cleveland, Ohio
Insecticide Dept.



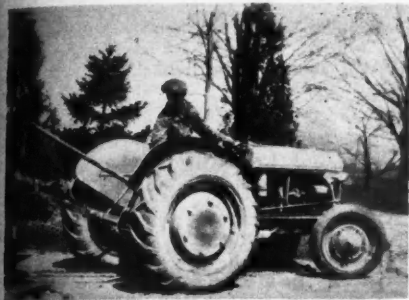
LETTERS TO THE EDITOR

A Homemade Speeddigger

Dear Sirs:

I own a Ferguson tiller, plow, disc and buzz saw for my Ford tractor. But a fruit grower with 300 tree holes to dig annually cannot afford to pay approximately \$150 for the Ferguson Speeddigger.

I feel it would be a real service to your growers, many of whom own Fords, to have more details on the Cranes' home-made digger pictured on page 20 of the January issue of AMERICAN FRUIT GROWER. Hector, N.Y. James Hazlett



Photograph and information given us have been mailed Grower Hazlett. More details must come from H. B. Crane, Fennville, Mich. We suggest that Ford dealers acquire a Ferguson Speeddigger and rent it to fruit growers.—Editor

Valuable Book Free

Gentlemen:

In view of the limited amount of new farm machinery available and the necessity for keeping farm equipment now on the farms in the best possible running order, we have produced quite recently a booklet entitled "How to Keep Your Farm Equipment in the Fight."

This booklet has been written with the idea of being helpful to the farmer regardless of the make of equipment he is using. It will be sent free to farmers who write us for it.

Deere & Company
Moline, Illinois

R. E. Swartley

Averaged Income Losses

Dear Sirs:

Both Congress and the Treasury have been concerned also with the problem of the equitable taxation of fluctuating incomes. The provisions for the carry-forward and carry-back of net operating losses, adopted under the Revenue Acts of 1939 and 1942 and now in effect, permit individuals and corporations to average business income and losses over a period which may be as long as five years. Under these provisions losses sustained in any current year may be carried back against the income of the second preceding year. If these losses exceed such income, the balance may be charged against income of the first preceding year. If there should still remain any losses not offset by the income of the two preceding years, such losses may be carried forward against the income of the two succeeding years.

Although the above provisions will, I believe, go a long way toward averaging out profit and loss years for business firms, you probably have in mind also the pos-

sibility of averaging years of high and low income. Such an averaging device would particularly benefit individual taxpayers with fluctuating income on which they are taxed at steeply progressive rates. The Treasury is sympathetic with this idea and is currently studying a number of possible ways in which it might be made effective without introducing too many new complications into our already complex tax structure.

General Counsel
Treasury Dept.

Randolph Paul

The above letter will be of real value to growers—now and later.—Ed.

A Young Farmer

Dear Mr. Meister:

My name is Gilbert Meister too. I am 8 years old. I am a little farmer. While my Father, Henry, works at a war plant at Sturgeon Bay, I, my Mother and my 2 little sisters do the farm work.

I drive our Massy-Harris in working the soil, haying and harvesting.

Hoping to hear from you soon.

Forestville, Wis.

Gilbert Meister

We trust the wages Farmer Meister receives violate none of the ceilings fixed by O.P.A.—Ed.

Fruit Clubs Wanted

Gentlemen:

Can you give me the names of some Fruit Clubs that I could write to. What I wish is the names of people who supply fresh fruit each month for a given amount of money. I have the name of one in Washington, but wish another one or two. 4048 Park Avenue, Minneapolis, Minn.

M. I. Higgins

Bear Creek Orchards, Box 60, Medford, Oregon, is another. Why don't other growers enter this field? It lends itself especially to the delivery of fruit by airplane, now so much in the public mind.—Ed.

New Strawberries

Dear Sirs:

I read your article, "Some New Strawberry Varieties" in April issue and would like to know where I can obtain some of the Tennessee 148 and Tennessee 263 which you mention.

Crow Stage
Eugene, Oregon.

Mrs. F. E. Hess

Write Mr. S. S. Magill, Department of Horticulture, University of Kentucky, Lexington.—Editor

Sani-Flush Not Injurious

Dear Sirs:

Some years ago a story that Sani-Flush would injure a septic tank was given a considerable amount of circulation. No one seems to know who started it, but it was entirely without foundation. To prove its falsity, the most eminent research chemists made exhaustive studies and presented Sani-Flush with an absolutely clean bill of health.

Copies of this report can be had by writing the Hygienic Products Co., Canton, Ohio. Knowledge of it will help many a harassed farmwife who now hesitates to use the one perfect antidote for discolored toilets.

L. E. Swinehart

Stop Sabotage

of your fruit crop



• DESTRUCTIVE ENEMY INSECTS are now mobilizing to destroy your 1944 fruit crop and rob you of your profits. Stop them now before they can start their damage... Stop them with Standard's summer spray oils!

For years Standard's summer sprays have helped growers realize larger fruit yields by increasing and prolonging the killing power of lead and nicotine sprays. They not only spread the poison more thoroughly, but also hold it on longer.

Later Spraying Pays Off!

Clean, worm-free fruit depends upon a thorough job throughout the season. Don't make the mistake of ending your spray schedule too early! In almost every case, late in the season damage can be traced to failure to "follow up" on early spraying.

SUPERLA Summer Spray Oil

Produces exceptional results used with arsenate of lead for both wash and non-wash spraying programs—or with fixed nicotine and nicotine sulphate if you wish to mix your own oil-nicotine spray... either way a great aid in producing more salable fruit.

NICO-SOL Summer Spray Oil

An unsurpassed, low-cost, efficient, nicotine-in-oil spray. The ideal spray where a complete lead schedule might exceed the allowable tolerance in a non wash codling moth control program.

**STANDARD
SERVICE**

STANDARD OIL COMPANY

(INDIANA)

Chicago, Illinois



These are baskets of Elberta showing typical appearance of a jumble pack of different size fruit. Elberta is not a big peach unless grown big. $2\frac{3}{4}$ -3, about 110 per bushel.



$2\frac{1}{2}$ - $2\frac{3}{4}$ about 140 per bushel.

SETTING THE STAGE FOR THE 1944 PEACH CROP

WHILE estimates of the damage done to the Southern peach crop by the April 4-5 freeze are still premature, the frost does not appear at this writing to have been serious enough to affect the general situation of a large national peach crop. Tennessee's crop seems to have been all but wiped out, but then the Tennessee drop in production is not enough to alter the basic situation. If a large national crop materializes, peach growers will face a situation different than has ever confronted them before. It might be well to point out a few of the outstanding features of the present situation that are different.

In the first place, the curve of peach planting is up, and we can reasonably expect, with a good yield generally, to have an excess of 15 to 20 million bushels above the annual average. This situation would not seem especially alarming, however, in view of the fact that the consumer has increased buying power if it were not for the fact that skilled help is employed so extensively in the war effort and so many of the key men in the managerial force cannot be obtained again. This leaves the grower with a very great handicap, especially in view of the fact that the management factor has always mounted large as one of his difficulties at harvest time.

If we go into the summer with a heavy peach crop coming on in the nation as a whole, the growers will be confronted with a serious problem from the standpoint of containers, transportation and labor. I need not

By M. J. DORSEY

University of Illinois

say very much about any one of these except to point out that every effort is being made to meet the situation at the national level by capable men. We may have every assurance that a fair measure of success will be attained in meeting each of these more general problems. We are getting experience for the first time in taking an over-all look at problems of this kind and we can expect better results because of that experience.

With the big crop in prospect as the dominant note in the present situation, emphasis at the beginning of the season should be placed upon the fact that the national income will also be large. The Government has placed the "take" of the canned peaches for the armed forces at about 70 per cent, which will automatically put greater emphasis upon home canning this coming summer. How, then, will the grower meet the situation? What will happen if care is not taken to come into the picking season with a crop of the highest quality possible?

The biggest hazard the industry is faced with lies in the possibility of an excess set. Let us analyze the job step by step throughout the season to see what might be done about it.

To begin with, let us see what is accomplished by pruning. This job has been completed in the southern

states but it is still in progress in the central or northern producing areas. Studies at the Illinois Station show that about one-fourth to one-half of the total number of fruit buds produced by a tree are removed by pruning. Much will depend upon the severity of pruning, but the general trend of this operation is to reduce the hazard of an excess crop. Fruit bud killing generally has very little bearing upon the situation, assuming favorable weather at bloom for the set, if the number killed does not exceed 50 to 75 per cent of the total. Under favorable growing conditions, the enormous excess of buds at the end of the growing season, especially in an off-year, always presents the grower with a problem. Up to a certain point the fruit bud killing is a blessing in disguise, but growers are always glad to come up to the bloom period with a light fruit bud kill because winter killing is an uncontrollable factor.

Only brief mention need be made of the "drops" as we use this term in horticulture. In the peach there are three. The first drop, made up of flowers, comes on a week or 10 days after bloom and is generally so inconspicuous that it is overlooked. The next reduction in the crop comes in the second drop of small peaches, usually under one-half inch or so in diameter. Then comes the June drop, or the May drop further south, which is composed of still larger peaches. This is the most conspicuous of the drops,

primarily because of the size of the fruit, and emphasis is placed upon it here because the crop does not become stabilized on the tree until this drop is over.

There is a short period between the end of the June drop and the hardening of the stone at the tip during which it has been generally recommended that thinning be done. Even though some of the experiments indicate that thinning is more effective if done before this drop under practical orcharding conditions, considering the cost and the risk involved in reducing the crop too much by early thinning, it would seem that, by and large, it is not necessary to thin before the June drop is over. This is an important item to the fruit grower because experimenters have been wavering as to whether or not we should recommend thinning before or after the June drop. It would seem safe, however, considering the type of tree which has been developed by the training methods in common use, to delay tree conditioning until the June drop is over.

We now have to come to grips with the question as to how many peaches we should leave on mature trees. This is the crux of the whole question we have to meet this year if we are to produce a crop of high quality. Growers should turn to their June, 1943, issue of the AMERICAN FRUIT GROWER and re-study the article by Dr. R. V. Lott on fertilizing peaches. This has in it the fundamental facts, briefly expressed, of the build-up of quality in the last two weeks or so before harvest. Growers refer to this period as the final swell and emphasis can very well be placed upon it by virtue of the fact that in dealing with the excess crop the limitations in obtaining both size and quality come to a focus at this time. This situation was covered by the writer in the July, 1940, issue of the AMERICAN FRUIT GROWER in the following quotation:

"The whole problem of thinning needs to be viewed from the standpoint of the size of fruit desired at harvest. Maximum yields probably can be obtained from unthinned trees, so here again a compromise has to be made between number per bushel and size. This point can be seen from the following figures from the Illinois Agricultural Experiment Station:

Size of Fruit (inches)	Approximate No. in 50 pounds
1 1/4 to 1 1/2	960
1 1/2 to 1 3/4	611
1 3/4 to 2	340
2 to 2 1/4	250
2 1/4 to 2 1/2	195
2 1/2 to 2 3/4	140
2 3/4 to 3	110
3 to 3 1/4	90

"It will be seen from this table that both the number and the size of peaches are important factors in yield. There are, for instance, about twice as many peaches in a bushel with a one and three-fourth-inch size down as in a two and one-half-inch size."

In order to appreciate the significance of this quotation, it must be understood that there are really two components of yield; these are number and size of fruit. The grower should consider the significance of this statement in light of the accompanying photographs which show Elberta of different sizes in bushel baskets. The significance of these photographs lies in the fact that there is a point, although difficult to hit exactly, at which thinning might be done without reducing yield but at the same time inducing a maximum size of fruit for the fruit bud in question. If the kind of a growing season could be foretold, this point might be approximated very closely under orcharding conditions with experience, but to be safe it is recommended that the crop be limited to about 1,200 peaches per mature tree. By referring to the table given above, it will be seen that 1,200 peaches can mean either 12 bushels or 2 bushels, depending upon their size. The grower then is forced to accept a compromise between the two, and

the above recommendation is based upon the desirability of reaching a 2 1/2-inch peach at harvest for the larger part of the crop.

So far we have taken care of two fundamental approaches in putting the crop into condition, pruning and thinning. We now come into the home stretch with only 10 days remaining before the crop must be off the tree. The question is, "when shall we start the picking crew?" It is at this time that peach growers make one of the most important decisions of the year.

The following fundamentals are involved: (1) Early picking robs the grower of bushels and the consumer of quality. I am using "early picking" to mean starting the harvest crew to work before the background has changed from a greenish to a yellowish cast and before the peach is properly rounded up through the cheek diameter. (2) For the recommended stage of picking I am going to use the term "firm ripe." At this time the peach has rounded up to a greater extent, and the background has assumed a yellowish cast. Peaches picked at this stage can be shipped as far as at the former stage and will reach a higher quality as they soften. For the basket trade it is important, under the conditions of this year, that picking at Stage No. 1 above be eliminated absolutely and should start at Stage 2. (3) I am going to introduce the term "tree ripe" to apply to a still later stage of picking. The peach has increased still more in size, the cheek diameter has increased still more, and nearly the full blush has been reached. Peaches picked at this stage are ready for immediate consumption and can be put on the local market with safety. For the roadside trade, especially for home consumption, picking two days later is recommended.

The peach growers may very well study the above section critically before saying the word "go" to the picking crew, because the consumer is be-

(Continued on page 29)

2 1/4-2 1/2 about 145 per bushel.

2-2 1/4 about 250 per bushel.

1 3/4-2 about 340 per bushel.



PPRICE control as a wartime measure has partially achieved its purpose. Living costs have been checked. But the cost of this control has been terrible. Half-baked, legal-talk regulations, written by earnest, harassed theorists, pressed invitations to skullduggery upon the millions of farmers, food processors, distributors, and retailers. They found it hard to decide whether to work under the intent of the Orders, or under the conflicting wording which proffered more money for driving up the weird alleys the Orders themselves suggested. The result has been a moral debauch besides which Prohibition's bootlegging was a sewing circle.

Any control of prices covering 130 millions of people and a half-continent should be simple; should be easily understandable and practically self-enforcing. OPA started from the other extreme and has continued from there. Apply as many controls at as many points as possible to the grower, to the broker, to the car-lot receiver, to the distributor, to the jobber, to the retailer, and divide these by all the freight rates in the country, and multiply by zones, and there are "the ceilings!"

This would be humorous, except that these Orders were clothed in "The Law." Growers who pick the wrong ceiling from the scores available are subject to criminal penalties, civil action, trebles damages, and loss of license.

Government prices fascinate humans. When Government fixes and publicizes a price, that tends to become the only price. Last fall apple ceilings were applied in mid-harvest. Before the ceiling plenty of lower-grade apples had been selling at \$1.50 per bushel, and the finest packs above \$4. From the day OPA announced the ceiling as \$2.76 (for 48-lb. bushel), those lower grades rocketed to \$2.76, and stayed there. Every apple of every grower was worth \$2.76. Government had said so. The few fancy grades came down to \$2.76, certainly, as the big volume of lower grades jumped. Just who gained and how much, by ceilings, is a question.

Retailers have the same trouble. Once the Government sets retailer ceilings, that tends to become the ever-normal price to consumers. Gluts may break the price the retailer buys at, but "Ceiling Price" remains over his fruit bins. This ceiling often has been so high that the public won't buy heavily enough to relieve the surplus, and supplies dam up to batter the growers' returns still lower. That has been serious with several items. It is one of the inescapables of Government controls.

Are the ceiling bases sound? At

PRICE CONTROLS

By
**CARROLL R.
MILLER**

National Peach
Council



present, ceilings for all manner of farm products are built on a single standardized formula. They are based on parity; or, to quote almost verbatim from Emergency Price Control Act, on "The highest price received by producers between Jan. 1 and Sept. 15, 1942 (adjusted for grade, location and seasonal differentials)." No ceiling shall be established below the higher of these two, parity or highest price. Modifications shall be made where necessary to increase production, or where increased labor costs since Jan. 1, 1941, are not reflected, adequate weighting shall be given to farm labor, so reads Public Law 72.

The base must be right, or the ceiling is ramshackle. Parity is the usual base. How is it determined for peaches? Parity is almost identically built for corn, wheat, beef, vegetables, and fruit. Prices received by growers 30 years ago (1909-14), altered to return the grower as much in purchasing power as he got then. Government takes the 1909-14 figure, multiplies it by a figure indicating a nationwide increase in costs and some other factors, and calls it "Parity." Labor is either omitted or admittedly insufficient. But changes within the industry are completely overlooked. For instance, since 1909, corn, wheat and potatoes have been "mechanized" strongly. Less hand labor is used. Peaches (and most tree fruits) are the opposite. Hand labor has increased, certainly doubled, and, perhaps quadrupled.

Back in 1910, spraying was little known or used. Little thinning was done. Fertilizing was experimental and optional. "Brown rot" was rife. Many carloads arrived on markets badly infested, and were sold at slaughtered prices to move this rotting stock. These "brown rot" prices are a part of the peach parity base.

Today, spraying is continuous and expensive. Thinning and fertilizing are "musts." Consumer and grade standards have jumped until much

that formerly went to market no longer is packaged. All this means much more labor and expense than in 1910. Today's sprayed, graded and protected peaches have only a slight connection with 1910's and prices for them have no actual relation to 1910 with its high per cent of "brown rot." Yet, 1910 prices are our base. These 1910 "prices to grower" are only guesses, mostly, Government men candidly admit. They were compiled from vague reports by a few general farmers, mostly, at that time to show trends only, not to serve as official market reports.

The peach parity base for 1909-14, for instance, was \$1.14 bu. Today, 30 years later, it is \$1.95, or 81 cents more. Does any grower think that \$1.95 equals \$1.14 in 1910, considering the increased labor, materials, decline in dollar-purchasing power, and other factors? The base is seriously incorrect. OPA adds "cushions" to cover packing, labor and other costs. If the additions are large enough, the ceiling will not work injury. But to cover the special conditions in peaches, such cushions must be large.

As to Ceiling Base No. 2, "the highest price, Jan. 1-Sept. 15, 1942," Government statisticians say that average prices, not the "highest price," are meant here. And they have made that stick. The 1942 average price is \$1.65 per bu., by their figures. U.S. Market News Service officially reported in June, 1942, f.o.b. prices of \$3.40-\$2.75 per bushel. Growers have records of sales up to \$4. But those prices, say the statisticians, are not the ones meant by "the highest price."

Summing up this price ceiling discussion, it is clear that simplicity must be the governing rule, if ceilings are to be successful; and that some more accurate bases must be had, if peaches are to be given a sound, increased-production ceiling. Better no ceiling than a guess-work one, which might do huge injury to the industry without really helping food price levels.

Last summer no ceilings were imposed on "fresh-fruit" peaches since the Southern crop was frozen out, and growers tried to recover part of their year's operating costs from a few bushels. Early estimates this year, following the April 4 freeze which swept peaches south of the Mason-Dixon Line, indicate almost a repetition of 1943's crop failure for Georgia, Texas, Oklahoma, the Carolinas, Alabama, and Tennessee. Two successive years of such punishment make it imperative that these growers receive exceptionally favorable price control treatment, or the industry in that big area may be lost to the nation.



Above is an attractive display of apples which are to be sold by the pound in self-service style.

MERCHANDIZING FRUIT

By L. L. RUMMELL

Cincinnati, Ohio

FRUIT, well grown, graded and packed, is half sold. The grower may fulfill this chief responsibility and put up the best pack possible, and still consumer acceptance is determined in large degree by the merchandizing ability of the retailer. This business of selling is a dual job.

Quality is the first essential on this road to maximum consumer acceptance. Cull merchandise is always a drug on the market. Federal-state inspection service has no substitute in the eyes of buyers for large food companies. With most chain store buyers grade and inspection certificates are demanded before price is asked.

This does not mean that Utopia in fruit marketing would necessarily come if only U. S. Fancy and U. S. No. 1 grades were offered. Pocket-books vary in size. And recent consumer studies indicate that the food store can well handle both kinds, No. 1 and No. 2, and the No. 1 sales are not lessened materially by the presence of a lower cheaper grade. However, promotion by mass displays and advertising will concentrate on the quality merchandise.

Packaging is also important to growers in selling their fruit to buyers, but in the large food store packages often are not displayed or sold, except small consumer packs or in canning days. This year containers are critical material, and must be reused again and again, especially wooden ones. Everybody, therefore,

must be more tolerant of packages now.

In answer to the question of present and future trends in selling fruit, S. I. Atchison, in charge of produce sales for the Kroger Grocery & Baking Co., said the trend for the modern large food market is decidedly in these three directions: (1) consumer type packages; (2) sales by weight; and (3) self-service. The consumer package is still experimental with some fruits, and a package does not have the same acceptance in all markets. It works well with potatoes and citrus fruit, especially with mesh bags. Consumer package

for peaches (paper container with window) had poor acceptance last year. One deterrent always to fancy small packages is their cost, including labor in packing. Also the housewife likes to see the entire article in such highly perishable fruit as peaches.

However, the package ready for the consumer to pick up, with quality known to her satisfaction, and price marked, is an adjunct to self-service. The war has forced several changes, some considered impractical a few years ago. Self-service in produce is one. Pound selling is another. Both are here to stay.

While we have placed first importance on quality fruit, still the retailer has a responsibility in maintaining this quality until it reaches the consumer. He has his money invested in it. With quality merchandise he is making a larger profit, and, therefore, he wants it handled by trained personnel to maintain its appearance. The Kroger Company conducts schools for these people, now many girls, who sell fresh fruits and vegetables. W. J. Moore, who has supervision of such training, says they quickly learn how to set up displays, how to trim and cull, how to freshen up vegetables, how to maintain attractiveness through the day, and how to store at night.

Speaking of this training period necessary for efficient merchandising of produce in stores, Mr. Moore said:

"Many a housewife may be unaware of the numerous jobs which must be done in the store so that she can buy fresh fruits and vegetables. What actually happens after the merchandise reaches the retail store is highly important since customers rank quality and freshness as
(Continued on page 26)

Consumer packaging is neat and convenient and it has been very successful in some markets.





Buds press their way forward



Lovely apple blossoms arrive



Next stage, the after-bloom

WHY FRUIT FAILS TO SET

By J. R. MAGNESS

FRUIT growers are frequently puzzled by failure of their trees to set a crop, when the bloom appears to be ample. The pre-bloom and bloom periods are extremely critical times in the life of the fruit grower. We will mention only briefly the things that may result in loss or partial loss of a crop.

Frost or freezing damage: As the buds begin to push in the spring, they become gradually more tender and susceptible to freezing injury. When the flower buds are still tightly closed, with petal color just beginning to show, they generally will stand 21 to 22° F. without the loss of the whole crop. At the balloon stage just prior to opening, 25 to 26° will usually kill a large proportion of the blossoms, and when fully open, 27° will kill most of the bloom. Fortunately, all blossoms do not develop together, and often a part of the bloom will be destroyed without the loss of the whole crop. Repeated freezes with temperatures down to 25 to 27 degrees, at or near full bloom, will generally almost wipe out the crop. Varieties vary somewhat in their resistance to cold. Among apples, Delicious seems particularly susceptible to cold injury, and in peaches, such varieties as Elberta and J. H. Hale are more tender than some others.

Lack of pollination: Many kinds of fruit require the pollen of other varieties for fruit setting. Most apples, pears, sweet cherries, and many plums require cross-pollination. Peaches, apricots, and sour cherries, on the other hand, are generally self-fertile. Varieties and kinds of fruit requiring cross-pollination are dependent first upon having suitable pollinizing varieties nearby, and secondly on

activity of insects, mainly honeybees.

Honeybees work very little when temperatures are under 50° F. Cloudy or windy weather is also unfavorable for their flight. Thus, if the weather is very cool, and particularly if generally cloudy and windy during the blossoming season, cross-pollination will be reduced and set may be poor, particularly on varieties requiring the pollen of other varieties to set fruit. During such cool seasons, having pollinating varieties in close proximity and having an abundant bee population are most important from the standpoint of set.

Hot weather: The writer has observed a number of times that excessively high temperatures—above 90° F.—during the bloom season generally result in a lighter than normal set, despite the favorable conditions for insect activity. Possibly such conditions are associated with excessive water loss from the flowers. Moderate day temperatures of 60 to 80° appear most favorable, and lower or higher temperatures may result in unsatisfactory setting.

Diseases: Brown-rot of peach,

Well set fruit appears

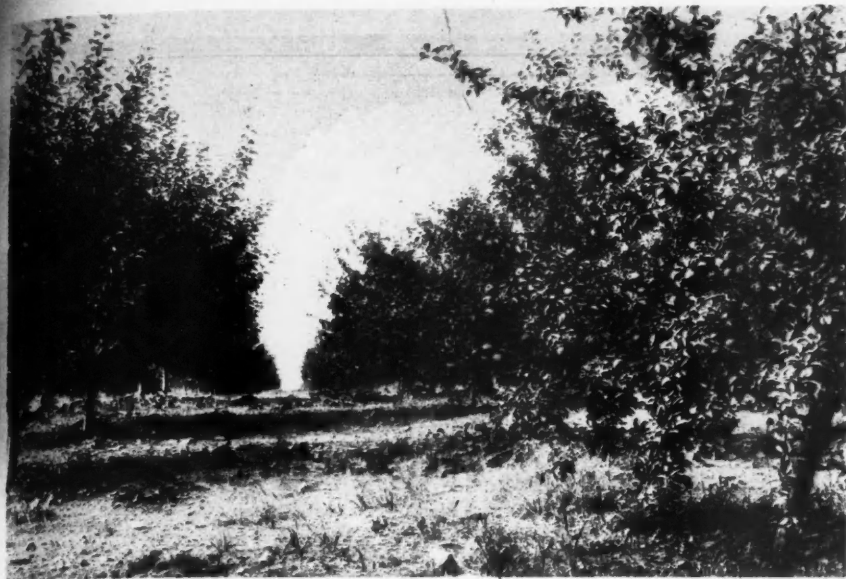


apricot, and other stone fruits, may attack the blossoms to such an extent that little fruit sets. Fire blight of apple and pear may attack so many blossom clusters as to appreciably reduce yield. Scab of apples, when very severe and when infection occurs very early, will result in dropping of much young fruit. When such diseases are so serious as to markedly affect set, they generally are quite conspicuous and are readily recognized by the grower.

Spray injury: Numerous types of spray injury may occur to the buds, opening flowers, or young fruits and result in decreased set or loss of a crop. Such injury may result from sulphur sprays near the bloom stage when followed by excessively high temperatures, of near 100° F. Sulphur sprays closely followed by oil may cause injury and fruit drop. All of the materials commonly used as dormant sprays may cause severe injury if applied too late.

Devitalized Blossoms: Trees that are making little growth, as a result of lack of fertilizer, winter injury, drought injury, or for other reasons, may produce weak flower clusters which fail to set even under favorable conditions. Such lack of setting on low-vigor trees usually results only when the trees are far gone.

Inherent varietal factors: Some varieties, because of their inherent characteristics, rarely set heavy crops. Well known examples are the Arkansas (Black Twig) apple, J. H. Hale peach, and Anjou pear. Full crops of such varieties are rarely set, even under the most favorable conditions of cross-pollination, tree vigor, and climate.



Girdling McIntosh apple trees 8 years old induced fruitfulness. Trees on right were girdled, averaged 4 bushels per tree. Trees on left were not girdled, averaged 1 bushel per tree.

APPLE ORCHARD MANAGEMENT

By F. N. FAGAN

Pennsylvania Experiment Station

APPLES at \$3 or \$4 per bushel suddenly turn high-yielding orchards into property, resembling gold mines. Orchardists who have been neglecting their trees in the past have suddenly acquired an ardent interest and are asking questions about proper fertilization and management practices. Our experience at the Pennsylvania State College with a 25-year old, four-variety orchard should prove helpful to apple growers.

Interesting results have been obtained from a 20-acre orchard, composed of 5-acre blocks each of McIntosh, Stayman, Rome Beauty, and Baldwin. This orchard, planted in the spring of 1917, is on a Hagerstown clay loam. The soil is of average fertility but a ridge of thin soil extends through portions of the Baldwin and McIntosh blocks and entirely through the Rome Beauty block. Slight outcroppings of limestone rock are also present in this orchard.

A good cover crop of mixed clovers and bluegrass has been maintained on this orchard since it was planted. When the cover growth became too dense and rank, it was checked by harrowing. The cover crops have been mowed one, two or three times each season, and clippings were not removed. For this reason, the soil has been well supplied with organic matter.

A complete fertilizer has been applied to this orchard each year.

The fertilization consisted of 135 pounds of Nitrate of Soda or the equivalent of nitrogen in some other form, 60 pounds of 20 per cent Superphosphate, and 20 pounds of 50 per cent Muriate of Potash, per acre. The applications were made about three weeks before the buds opened. The calcium content of the soil has also been held high enough to grow good legume covers.

The rate of fertilization appears to have been adequate to maintain a good growth of grass and clover, and until recently the rate of nitrogen has been adequate for tree growth and yield. There are now indications that more nitrogen is needed as the trees grow older. Terminal growth has not been as

great in the last few years as it was during the years up to 1936.

With such management practices, remarkable yields of apples, particularly of McIntosh, have been obtained. For the past 11 years at State College, the 5-acre McIntosh block has been consistently the best producer, yielding an average of 3,260 bushels per year. Over the same period the block of Stayman trees averaged 1,941 bushels, Rome Beauty 1,596 bushels, and Baldwin 1,549 bushels per year.

Since 1934, the McIntosh block yielded better than 2,000 bushels per year, with an all-time high of 7,397 bushels for the five acres in 1942. Following this peak year, the McIntosh trees came back to out-yield any of the other three varieties by as much as 377 bushels.

The performance of the four-variety orchard for the past 11 years is shown in the table below.

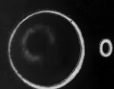
Management practice prior to the establishment of the permanent orchard is of interest to apple growers. From 1917, the year the trees were planted, to the winter of 1932-33, filler apple trees were growing between the permanent trees. The planting was 20 x 20, making 108 trees to the acre. Half of the fillers were removed in 1928, leaving a planting of 54 trees per acre. In the winter of 1931-32, the remaining fillers were removed, leaving the permanent trees numbering 27 to the acre.

Yield records of this land while filler trees were occupying the space are not reported in this article since it was in this orchard where extensive girdling tests were conducted to cause early fruiting. First extensive girdling of the filler trees to induce fruitfulness was started when the trees were 7 years old. Filler trees which were girdled produced approximately four times as much fruit

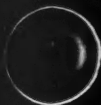
(Continued on page 27)

Year	Yields From 5-Acre Blocks			
	Variety			
	Stayman bu.	McIntosh bu.	Rome Beauty bu.	Baldwin bu.
1933	373	1,239	928	445
1934	2,099	2,195	1,430	1,408
1935	1,798	3,464	1,327	284
1936	1,202	2,498	1,898	1,999
1937	2,467	3,676	1,802	1,195
1938*	402	2,176	16	134
1939	2,587	2,142	2,106	3,293
1940	2,768	5,408	2,012	1,486
1941	2,464	3,148	1,398	1,721
1942	3,637	7,397	2,497	4,061
1943	1,563	2,527	2,150	1,015
TOTAL (11 Yrs.)	21,360	35,869	17,563	17,041
YRLY. AVE.	1,941	3,260	1,596	1,549
YRLY. AVE. PER ACRE	388	652	319	309

*The 1938 yields are low in Stayman, Rome Beauty and Baldwin due to an early June freeze after the fruit had set. The freeze did not cause the trees to enter alternate bearing in the next five years, however.



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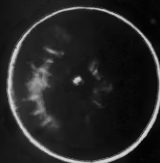
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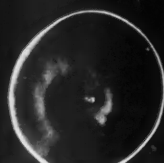
20



30



50



75

The size of apples is proportional to the number of leaves that support them as shown above.

Courtesy,
Dr. A. E. Murneek
Mo. Agr. Exp. Sta.

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You Will Pick Better Fruit if 30 to 50 healthy leaves nourish each apple. Black Leaf spray programs prevent aphids and leafhoppers from crippling or destroying leaves. Leaf injury reduces yield and quality.

Black Leaf 40 and Black Leaf 155 are not caustic or toxic to foliage or fruit, and retain no objectionable residues at harvest.

Get extra control of codling moth and prevent leaf-hopper feeding by adding Black Leaf 40 or Black Leaf 155 to early lead arsenate sprays, containing neutral sulphurs.

For later cover sprays use Black Leaf 155 and summer oil to gain highly effective control of codling moth eggs, worms and adults, as well as leafhoppers, aphids, and leaf miners.



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Record of the Railroads

RAILROADS are now carrying nearly twice the traffic moved by rail in the first World War period with about one-third less equipment and 500,000 fewer employees. There were 155,058 cars of export freight, excluding coal and grain, handled through U.S. ports in March compared with 100,294 cars in March 1943, or an increase of 55 per cent. In the fruit field, freight car loadings for citrus fruit in the second quarter of 1944 showed an increase of 12.1 percent over 1943.

Farmers and the Draft

Many young farmers and employers of agricultural workers have been wondering, in view of the recent discussions to the public press, whether the order to take all men between the ages of 18 and 26, with a very few definite exceptions, for military service applied to those who work the land. An informed government source points out that the Tydings Amendment to the Selective Service Act is still in force. This amendment says in effect, that farmers and farm workers who are devoting full time to productive agriculture shall be left on the farm. Therefore the 18-26 order does not apply to agricultural labor. If some young farm workers are being taken, it is the result of the recent order to draft boards to review all deferments with a view to combing out undeserving cases for military service.

Decision was recently reached to abandon the man war unit plan. Henceforth local draft boards may defer all workers regularly engaged in the production of essential farm commodities if they cannot be replaced.

Apple Advisory Committee

The Apple Industry Advisory Committee is meeting in Washington on Monday and Tuesday, May 1-2. Recommendations are being made for apple growers and shippers of the country for the 1944-45 maximum price regulation for apples. The meeting was called by O.P.A. and W.F.A. On the Apple Advisory Committee are the following growers and shippers:

Reuben G. Benz, Yakima, Washington.
C. E. Dutton, Milford Center, Ohio.
J. E. Klahre, Hood River, Oregon.
John Lyman, Middlefield, Conn.
Henry W. Miller, Jr., Paw Paw, W. Va.
Paul W. Scea, Wenatchee, Washington.
Paul C. Stark, Louisiana, Missouri.
C. C. Taylor, Albion, Michigan.
J. Wessel Ten Broeck, Hudson, New York.

NATIONWIDE NEWS

Civilians Will Get Less

Present estimates indicate that from the 1944 pack of canned fruits and vegetables, civilians are expected to receive about 20 per cent less fruits and 15 per cent less vegetables than were available to them from the 1943 pack. From the 1944 pack civilians are expected to receive less of such major items as corn, peas, tomatoes, green and wax beans, fruit cocktail, peaches and pineapple. Somewhat larger supplies of minor canned fruits and vegetables probably will be available to civilians. Should production exceed present estimates, however, civilians will receive more than is expected at present the WFA points out.

New Land Value Basis

A new basis for evaluating the productive ability of land is suggested by one of the farm implement companies. It argues that the old "dollars per acre" method gives a fairly good price measure but it doesn't go far enough. It calls for something that will measure values in terms of production capacity for next year or for other years to come. For instance, instead of calling a farm a 320-acre wheat farm, it is suggested that it would be better to call it a 10,000-bushels-per-year wheat farm. Or, instead of a hundred acre orchard, to say a 20,000 bushel apple farm.

Outlook Better than 1943

U.S. Weather report April 19 . . . "seasonal agricultural operations have been delayed greatly because of frequent rains or persistently wet soil . . . field work has been hampered or



Secretary of Agriculture Wickard, left, and Colonel Edward S. Evans, Detroit Industrialist, eating tropical oranges picked ripe in California and Florida 24 hours before and flown to the recent Air Cargo Luncheon in Detroit.

even at a standstill. Current reports from large areas indicate that farmers are rather generally two weeks or more behind the usual schedules of seedbed preparation and spring plantings . . . Freeze of last year was responsible for the extremely small crop of early fruit in 1943. This year, while there has been considerable damage to early fruit in some areas, the present outlook is much more promising than it was a year ago."

More Fertilizer Used

Fertilizer sales in 1943 were 29 percent larger than they were in 1930, which was the peak year until 1941. In terms of plantfood, the increase of 1943 over 1930 was 46 percent. Largest tonnage increase was in the Midwest—71 percent in the East North Central and 63 percent in the West North Central region. Preliminary indications point to a further rise in fertilizer tonnage this year.

Fruit Cooperatives Decline

Fruit, vegetable and nut marketing cooperatives were most numerous in 1930-31 when there were 1,457. Since that year the number has declined to 990. More than one-third, 353, of the organizations are in California.

Other states reporting more than 40 active associations are: Florida, 64; Washington, 56; and Michigan, 45. A large part of total membership is in California, which reported 47,000 members. Utah associations reported 18,200 members; Michigan 14,200; and Colorado, 10,800. Dollar business for five leading states was: California, \$325,900,000; Florida, \$55,000,000; Washington, \$34,080,000; Texas, \$33,200,000; and Georgia, \$126,200,000.

Weather a Week Ahead

Weather a week ahead and how to get it. If you want to know the weather coming for a week ahead, telephone U.S. Weather Bureau, Washington NATIONAL 2174 and ask for District Forecaster. He can tell you within a couple of degrees what temperature will hit your section for some days ahead, day and night; whether there will be wind to retard frost or not; what the moisture conditions will be, and other things highly valuable to the grower or specialist. The Weather Bureau has resumed publication of its twice-weekly bulletin "Weekly Outlook" which will be mailed upon request. Write "Weather Bureau, Chief of Bureau, Washington, D.C." For sections away from the national Capitol, call local U.S. Weather Bureau stations. You will get a lot of information if you are in a business that needs it.

STATE NEWS

KANSAS—Nurserymen throughout the State are practically sold out of fruit trees. Many young apple orchards are being set out with a view of adding five to 10 acres every six to eight years. Some of these trees are on "hardy frame work," and, when land is sloping, they are being planted on the contour.

The manpower situation is very acute—**GEO. W. KINKEAD**, Sec'y, Topeka.

MINNESOTA—The Haralson apple has definitely established itself as a profitable commercial apple in this region and it will continue to be planted extensively in Minnesota orchards. The tree is hardy, productive and comes into bearing quickly. A 12-year-old experimental orchard of this variety, planted in the filler system at the Minnesota Fruit Breeding Farm, yielded at the rate of 1,000 bushels to the acre last year. The Haralson is inclined to be a biennial bearer, and it must be thinned for best results when it is producing a heavy crop.

A special fund is being raised by voluntary contributions from commercial fruit growers so that money will be available when needed for expenditures in connection with price ceiling regulations and other matters of emergency. Part of the funds will be used to help support the splendid work, being done by the National Apple Institute. Contributions asked for from growers start at \$2 for three acres or less of bearing fruit (orchard or berries), with \$10 for 20 acres or more.—**J. D. WINTER**, Mound.

ARKANSAS—The first half of March in the Ozarks was warm and pleasant this year. Fruit buds swelled and sap climbed but, unfortunately, winter returned and did damage. Apples escaped serious damage and, so far as is known now, strawberries were not greatly injured, but peaches were wiped out. Fifty per cent of the cherry buds were lost and one-third of the Concord grapes, which comprise more than nine-tenths of the grape acreage in Arkansas' Ozarks, was damaged.

South of the mountains there was little, if any, frost damage. This fact gives the larger peach districts in the State a chance for a good yield. The apple bloom will be fair.—**THOMAS ROTHROCK**, Sec'y, Springdale.

NORTH DAKOTA—The North Dakota Agricultural Extension Service is embarking this year on a long-time home fruit planting program with the intention that these fruit plantings will provide, primarily, fresh fruit in season and for sauce, jams, pickles, etc. It is not the intention that the plantings should serve as an additional source of cash income. This proposed plan has been submitted and approved by the State Experiment Station which will cooperate.—**HARRY A. GRAVES**, Sec'y, Fargo.

MARYLAND—The Maryland fruit crop came through the rather cold snap of early April with some peach injury in the eastern shore and central Maryland section, but there was indication of a heavy crop if the fruit set in proportion to the buds.

Several apple growers were considering the use of deblossoming sprays, and some peach growers have purchased special wire brooms for knocking off peach buds in the very early pink. These methods are rather new and almost experimental, but, with the

labor shortage, the growers feel these are worth a trial. Some deblossoming sprays were used commercially last year on York and proved very satisfactory. The precaution in use of such methods is to be sure to have all the facts before beginning work.

The supply of most necessary orchard machinery has loosened up, and the chief worry now seems to be that of getting sufficient orchard labor, or holding what we have. The package situation is not solved, but there is hope that the crop will move to market in some suitable types of container when harvest season rolls around.—**A. F. VIERHELLER**, Extension Horticulturist, College Park.

MASSACHUSETTS—Plans for the 1944 fruit spray service are essentially the same as those followed last year, according to Dr. O. C. Boyd, Massachusetts State College, except that weather reports will be broadcast over the radio. Growers in each county will mail in old scabbed leaves at intervals and the seasonal development of apple scab will be followed. The development of other diseases as well as insects will, likewise, receive attention. Spray messages will be made up at the College each Monday and Wednesday and broadcast on Tuesday and Wednesday and on Thursday and Friday, respectively.

The season for twilight meetings is at hand. At least 30 such meetings will be held in orchards throughout the State, mostly in May and June. Some July meetings are tentatively scheduled. These gatherings are very popular because the subjects for discussion are the special problems at hand when the meetings take place. Pest control is the dominant feature.

Several growers are planning to use, on a trial basis, the blossom removal sprays. Some trials also will be made at the State College this spring, particularly with Wealthy. Growers are cautioned that blossom thinning with caustic sprays is a very delicate operation and must be done with special care.—**LAWRENCE SOUTHWICK**, Amherst.

VIRGINIA—On the night of April 4 and the morning of the 5th there were temperatures as low as 20 degrees above freezing. North of Staunton little damage occurred to fruit blossoms, but from Staunton and Crozet south the temperatures were lower and peach blossoms were approaching full bloom, and considerable damage occurred in low spots and in unfavorably located orchards. Trees are heavily budded and a very considerable



The two little girls in the photo above are daughters of Paul E. Muckley, prominent fruit grower of Waynesburg, Ohio. The big apples adorn the face of the "Apple House" where many many gallons of cider are sold.

loss of buds could be sustained without much loss in the final output.

So far, there appears to be little damage to apple buds because of the cold spell.

The package situation is very discouraging at the moment. With a full peach crop, most of the available baskets will be used but, because of limited lumber material and labor shortage, there will be a very limited supply of baskets for apples. However, as a result of potato package restrictions, a considerable number of barrels from the Florida Potato area will be available for apples. Barrels will be the proper size and construction with holes for ventilation. Many of the southern dealers are preparing their markets to receive apples in barrels this season.—**W. S. CAMPFIELD**, Sec'y, Staunton.

NEW HAMPSHIRE—The New Hampshire Horticultural Society will be hosts to the annual meeting of the New York-New England Apple Institute in early July. It is planned that the Institute and Society will hold a joint meeting at Hampton Beach with a tour of some outstanding orchards in the immediate vicinity of the seacoast. James W. Elton, a past president of the Society and a director of the Institute, is chairman of the arrangement committee. Tentative dates are July 11-12. All fruit growers are invited to this meeting.

On April 12 the executive officers of the Society and leading fruit, potato and vegetable growers met with a special farm labor committee appointed by Governor Blood, to map out plans for harvesting the expected bumper crops next fall. It may be necessary to use transient labor camps or war prisoners, and the growers feel that early plans should be made in this direction.—**ALFRED L. FRENCH**, Sec'y, Concord.

RHODE ISLAND—The fruit situation in this State is promising. Peaches, which were almost a complete loss last year because of freezing, promise a good crop. Apples are well budded. However, Aphid and European Red Mite eggs are quite numerous.

David Reid, Meschanticut Park, and Edwin Knight, Greenville, prominent fruit growers, plan cooperative tests with the new fungicides fermate and purtize. The Rhode Island Experiment Station is active in the developing and testing of organic spray materials and growers are anxious to try them.

A grower's goal of 300 bushels per acre of U. S. No. 1 apples is being set this year. A New England-wide campaign is being considered.—**E. P. CHRISTOPHER**, Horticulturist, Kingston.

UTAH—Prospects for a fruit crop in Utah are good but it will not be a record crop like last season's. Most apricot trees overbore last year and, as a result, have only a very light set of fruit buds. The same situation is true in many peach orchards where the fertilizer and pruning program was not what it should have been.

In spite of the extremely late winter, fruit growers are completing their pruning with the assistance of some Japanese help from the camp at Topaz.

All fruit growers are looking forward to another prosperous year, in spite of labor and machinery problems.

Membership in the Horticultural Society has almost doubled that of preceding years, indicating greater interest on the part of fruit growers.—**A. STARK**, Sec'y, Logan.

COLORADO—The Otero County Farm Labor Association was recently organized to recruit Mexican nationals for all types of farm work in this County in 1944. Homer Knapp was elected president of the board of directors; E. A. McGlothlin was elected vice president; and Paul Hershey is temporary secretary-treasurer. The organization is a non-profit group and it will serve farmers and fruit growers who become members.

(Continued on page 24)

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Big, tough, deadly... "Water Buffalos," the amazing new war vehicles military experts have called "the answer to the Pacific warfare!" Heavily armed and armored amphibious tanks, "Water Buffalos" swim through the sea, climb over coral reefs and charge up on the beach... ride over barbed wire, barricades and pillboxes, spraying death as they go. It can now be told that the Army, Navy and Marines used these "Water Buffalos" in

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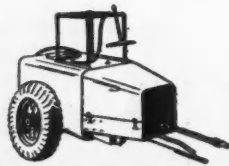


FOOD MACHINERY CORPORATION

EXECUTIVE OFFICES: SAN JOSE, CALIFORNIA



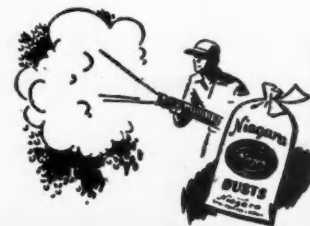
Riverside Division... Citrus Packing Equipment, Automatic Box Making and Lidding Machinery, Fruit and Vegetable Protective Processes. Riverside, Calif.



Bean-Cutter Division. Sprayers, Dusters and Packing House Equipment for Fruits & Vegetables, Fog Fire Fighters, Turbine Pumps. San Jose, California.



Peerless Pump Division... Deep well turbines, hi-lifts and pumps handling water for every purpose. Los Angeles and Fresno, California; and Canton, Ohio.

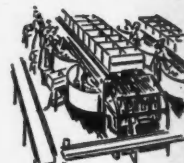


NIAGARA SPRAYER & CHEMICAL CO. Insecticides for protecting crops from insects and disease. Middletown, N.Y.; Jacksonville, Fla.; and Burlington, Ont., Can.

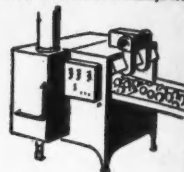
FMC Divisions and Typical Products



John Bean Mfg. Co.... Fog Fire Fighters, Bean Royal Spray Pumps, Automotive Service Station Equipment. Lansing, Mich.



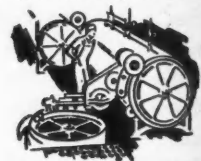
Florida Division... Citrus and Vegetable Packing Equipment, and Food Protective Processes. Dunedin and Lakeland, Florida.



Texas Division... Protective Processes, Canning Machinery, Fruit and Vegetable Packing Equipment. Harlingen, Texas.



Sprague-Sells Division... Complete line of machinery for canning foods. Hoopeston, Illinois.



Anderson-Burgrover Division... Complete line of machinery for canning foods. San Jose, Calif.

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IN THE NEWS

DR. WILLARD H. DOW

Dr. Willard Henry Dow, who found out how to make enough magnesium to produce thousands of fighting airplanes, and enough styrene to supply our needs for synthetic rubber, has been selected to receive the Gold Medal Award of the American Institute of Chemists for the year 1944.

Dr. Dow is president of The Dow Chemical Company, Midland, Michigan, succeeding his father, Dr. Herbert Henry Dow, its founder. The medal is to be presented at the annual meeting of the Institute in the Biltmore Hotel, New York City, May 13.

Dr. Dow was born at the scene of his present labors, Midland, Michigan, January 4, 1897. He was graduated from the University of Michigan in 1919, and went to work for The Dow Chemical Company in the same year. In 1922 he became a director and general manager of the company, and president upon the death of the elder Dow in 1930.



DR. WILLARD H. DOW

W. KING WHITE

If a poll were to be taken among American fruit farmers to determine their outstanding friend of today, a surprisingly large number of votes would go to tall youthful W. King White of Cleveland. The reason? Mr. White has for sale the very product the average fruit farmer needs most—a small and efficient crawler-type tractor. He is head of The Cleveland Tractor



W. KING WHITE

Company, a firm that is currently doing 45 million dollars worth of business annually, and one of four concerns making crawler-type tractors.

As with other firms, most of Cletrac's output since Pearl Harbor has been taken by the armed forces, only 15 per cent having been allotted by the government for civilian use. Mr. White proudly recalls that Cletracs have taken part in practically every major engagement of this war. The firm's greatest contribution to military equipment is the "Bomber Nurse," a high-speed military tractor that tows bombers over any kind of ground. This tractor also generates electricity and compressed air for running tools and inflating tires and landing struts, has facilities for completely servicing all types of aircraft. Contracts for thousands of these units have been filled, and Mr. White is hopeful that from now on there will be more regular tractors for farmers; the final decision depending upon the progress of the war and upon requirements to be met by the War Production Board. "We do have tractors for sale," says Mr. White, "and we want the farmers to know this."

(Continued on page 20)

CLEAN OUT THE CODLING MOTH

KILLS THE CODLING MOTH BEFORE IT IS HATCHED

Ovicide

ORTHOL-K

Summer Oil Sprays

2 HOLDS AND AIDS LEAD ARSENATE POISONING ACTION
Poison retainer

3 KILLS THE NEWLY HATCHED WORMS BY CONTACT
Contact killer

ORTHOL-K can be used with practically any spray—except those containing sulphur. In attacking the codling moth use ORTHOL-K with lead arsenate, Black Leaf "40", or Black Leaf "155".

ORTHOL-K is available as an emulsion or in convenient READY-MIX form.



The codling moth is one of the most destructive insect pests in our apple orchards. The increased use of ORTHOL-K Summer Oil sprays has already done much to reduce this menace. ORTHOL-K puts in three punches that knocks out the codling moth. It kills the eggs by contact. It piles on and sticks lead arsenate to kill entering worms. It kills newly hatched exposed worms by contact.

ORTHOL-K Summer Oil with lead arsenate, or Black Leaf "155", deposits an effective tenacious cover of stomach poison that makes positive the desired action, when and where it is needed.

ORTHOL-K Summer Oil is used extensively for summer control of European red spider, scale insects, pear psylla, pistol case bearer, leafhoppers etc. Its use for these insects does not interfere with the regular codling moth program.

For assistance in outlining a program that is tailored to your own orchard, ask your ORTHO field service man, or your local Experiment station.

CALIFORNIA
Spray-Chemical
CORPORATION
ELIZABETH, NEW JERSEY

PROTECT AND RESURFACE YOUR BASKETS AND CRATES!

Container Coating S-10 covers all old markings in one coat (brush or spray) and dries to a natural kraft color providing a new perfect surface for stencilling or marking.

It dries in a few minutes, is non-inflammable, and can be easily and quickly applied by anyone. Non-toxic—contains no lead or other poisonous ingredients.

WRITE TODAY FOR DETAILS!

MARTIN VARNISH COMPANY

900 West 49th Place, Chicago 9, Illinois

Look to THE HARSHAW CHEMICAL CO. for:

Manganese Sulfate
"Tecomangam" for Soil Nutrition

Manganese Sulfate
Feed Grade for Animal Nutrition

Cobalt Compounds
Feed Grades for Animal Nutrition

C. O. C. S.
Copper Oxychloride Sulfate
as a Copper Fungicide and
to correct a copper deficiency

"Tracel"
Agricultural Frit H W 325
as a nutritional spray to correct, in one application, manganese, copper, cobalt, zinc, boron, and other deficiencies

THE **HARSHAW CHEMICAL CO.**

1945 East 97th Street, Cleveland 6, Ohio
BRANCHES IN PRINCIPAL CITIES



'AERO' CYANAMID

REPORTS TO THE AMERICAN FARMER

The present scarcity of Granular 'Aero' Cyanamid for fertilizer use may be expected to continue for the duration due to its importance in the war effort.

But we are looking forward to the day, which we hope will be soon, when we will be able to furnish you regularly with your usual supply of Agriculture's Most Useful Form of Nitrogen—Granular 'Aero' Cyanamid, the same high concentration of nitrogen and lime which has given such excellent crop results.

Meanwhile, American Cyanamid's constant research activities in the fertilizer and allied fields have been developing new and specialized products of first importance to the American farmer.

AMERICAN CYANAMID COMPANY

Fertilizer Division

30 Rockefeller Plaza, New York 20, N. Y.

IN THE NEWS

(Continued from page 19)

The first question we asked Mr. White was, "How soon can farmers hope to get tractors when the war is over?"

"They will get tractors before they get many other things," he replied, "because tractor plants were 'diverted' more than 'converted' to war production. We don't need much re-tooling, nor much time, to swing back into peace-time production.

"Our immediate post-war responsibility," Mr. White continued, "will be to maintain as large a part of our huge wartime production as possible and divert it into peace-time channels. This is essential in order to meet needs of farm and industrial tractor users who have received only a small part of their normal requirements during the war years."

Mr. White went on to say that tens of thousands of tractors were reportedly destroyed in the Ukraine, to keep them out of the hands of the Germans . . . that tractors in the Argentine, on American farms, and on farms in other parts of the world are worn to a frazzle. They need replacement. "After we have caught up with our market," he concluded, "competition will be sharp."

Standing over six feet tall without an ounce of surplus flesh, King White, as he is called, played football under Gil Dobie at Cornell, loves bird shooting today. Born in Cleveland, he comes of a long line of industrialists. His grandfather developed the famous White Sewing Machine, and his father, Rollin H. White, developed the White Steamer and—with Windsor and Walter White—the White Motor Company. The Cleveland Tractor Company was established in 1917, and Cletrac has been a well known name in the tractor field ever since.

Only 43 himself, Mr. White has a 20 year old son, King, Jr., in the Air Corps, whose twin sister, Eleanor, works on the plant assembly line during vacations. Another son, Charles, will enter the Air Corps in June, and a younger daughter, Kathryn Ann, is still in school. Mr. White is proud of his air-minded sons, proud of the Cletrac Bomber Nurses which service America's planes, and of the Cletrac-powered bulldozers that level the fields from which they fly. King White's lifetime gospel of work now has four words added—Work to Win the War. When victory is won he will tackle the peace, and the problem of placing tractors on a million farms that never had them before.

PAPER CARTON STRENGTHENER

A NEW method of stretching the slim supply of wartime pasteboard cartons has been worked out by the Martin Varnish Company of Chicago. This company has developed a kind of stiff paint which can be applied with a spray gun and dries in three minutes. One type of coating is for used cartons and a slightly different preparation strengthens new boxes. Not only are the cartons made tougher and more rigid, but they handle easier after the application. It is available now—in small cans or huge drums. Color is natural kraft.

HAIL INSURANCE

OF all the scourges that nature inflicts on farmers, hail alone has met no antidote. Flood control is a carefully worked out science. Buildings are designed and protected against earthquakes and lightning. Irrigation, farming methods and selection of varieties protect against drought. Drainage overcomes wetness. Breeding and location give most plants some protection against high winds. Insect invaders face the most elaborate and determined resistance. But hail strikes with the invincibility of a divine force. No plant breeder has yet brought out a "hail resistant" species. No mechanical wizard has devised an effective protecting mechanism, or a means of breaking up a storm. Insurance is the only effective remedy that has been devised.

Writing in the October, 1943, *Economic Geography*, Hoyt Lemons points out that insurance experience shows that the "insurable chance for loss" for farmers in Iowa is one in six to have growing crops damaged by hail but only one in two hundred to have buildings damaged by wind or tornadoes. He also points out that half of the gross premiums of all state mutual insurance associations insuring against tornadoes, windstorms, fire, hail, etc., have come from hail, with losses paid for damage in proportion.

A special point for fruit growers and other farmers to consider in taking out hail insurance is that little or no part of their premiums go to support fraud. Everyone knows that a certain percentage of fires have suspicious origins. Theft insurance must support the racket in stolen cars and other machinery. But the most sinister of all criminals can't help bring about a hail storm. Man cannot alleviate its terrors, but by the same token he cannot increase its destruction. Insurance appraisers can estimate damage very accurately, because, even when a crop is a total loss, enough of it remains to gauge accurately its probable yield had the hail not struck.

There are distinctive hail regions in the United States, particularly the great plains belt. Cheyenne, Wyoming, has the greatest average amount of hail of any city in the country. Kansas suffers the most annual damage. Substantial hail damage, says Lemons, can occur anywhere between the Appalachian and the Rockies. Eastern shores of the Great Lakes have less hail than western shores where storms gather over land areas. Premiums are adjusted for the frequency of hail storms.

Fruit Cellars vs. Bomb Cellars



Last year, American housewives canned a billion and a half more jars of fruits and vegetables than ever before . . . nearly half of the nation's entire food pack.

This made it possible for our Armed Forces, our Allies, and those families having no canning facilities, to get their fair share of the billions of cans of fruits and vegetables commercially processed during the past year.

While busy housewives deserve most of the credit, let's not overlook the hard-working farmer and his equally hard-working motor truck. Vegetable farms use nearly 100,000 trucks . . . fruit farms around 167,000 . . . farms in general more than a million.

But for these motor trucks, American cellars would be almost as devoid of fruits and vegetables as the cellars in the homes of the much bombed Axis countries.

HIGHWAY TRANSPORT . . .

VITAL TO VICTORY AND THE AMERICAN WAY OF LIFE



GMC TRUCK & COACH DIVISION

General Motors Corporation

Home of Commercial GMC Trucks and GM Coaches . . .
Volume Producer of GMC Army Trucks and Amphibian "Ducks"

SHORT CUT TO
BETTER BORDEAUX

NICHOLS

TRIANGLE
BRAND

INSTANT

COPPER SULPHATE

99% + PURE!

➡ **SAVES LABOR** ... Mixes easily in spray tank. Eliminates stock solution, minimizes handling!

➡ **SAVES TIME** ... Dissolves rapidly. No waiting for it to go into solution!

➡ **SAVES MONEY** ... Dissolves thoroughly—no waste or sediment. Gives accurate control and greater safety in your mixtures—thus giving better protection and increased yields.

● **FREE** Send postcard today for valuable free booklet—"Bordeaux Mixture—Its Efficient Preparation and Use."

YOUR DEALER can also supply Triangle Brand Copper Sulphate in: LARGE CRYSTALS, SMALL CRYSTALS, GRANULATED and SUPER-FINE for regular Bordeaux Mixtures; also Monohydrated for Copper-Lime dusts. The oldest and the best known brand! Standard for over 50 years.

FRUIT GROWERS!

KER-O-KIL
WEED
BURNERS

are available to you!

Write for Information

KER-O-KIL MFG. CO.

Redwood City, Calif.



GRAFTWAX TREE HEALANT

excels in grafting and budding; cures tree and plant wounds, blights, and other diseases and for cavities. Repels rodents, ants and other pests. Adhesive, waterproof. IT SEALS AND HEALS. SWEAT ON COLD. 1 lb., 70¢—2 lbs., \$1.20—5 lbs., \$3.25—12 lbs., \$6.00 postpaid. Free sample.

CLARION DEVELOPMENT CO., Dept. A, Clarion, Pa.

APS

A PAGE CONDUCTED IN THE
INTERESTS OF THE AMERICAN
POMOLOGICAL SOCIETY

PRICE CEILINGS

MANY benefits have come to fruit growers because of the general activities of the National Apple Institute. No other organization did so much in acquainting O.P.A. officials with the apple industry as did the N.A.I. In Bulletin No. 155, issued by the N.A.I., written by John Chandler, Secretary, are some extremely interesting and significant statements which indicate the fine attitude of the N.A.I. in dealing with price ceiling program for 1944, which will be worked out soon in cooperation with the O.P.A. We quote in part:

"If we are any judge of the temper of the country, our people will demand a continuation of price control as a bulwark against the rapidly mounting factors making for inflation. Therefore, the National Apple Institute, representing the apple growers of America, will continue to view the situation realistically and will again offer to work with O.P.A. and W.F.A., endeavoring to work out a fair price ceiling and a set of practical regulations which will conform with the actual selling and distribution practices based on years of competitive business experience.

"All who have lived through this last season with MPR 426 know that order had many grievous faults. Difficulties arose primarily over regulations which did not conform with established business practices. Perhaps the most glaring oversight of all was the failure to provide any method of compensation for those who performed the services of assembling, selling and shipping apples from country points, which service is an

integral part of the distribution, in the same category as that performed by brokers, jobbers or receivers."

Our friends away to the northeast in Nova Scotia are fruit growers of top rank. The Nova Scotia Fruit Growers Association has just published its Eightieth Annual Report. This report contains many interesting items and compares well with many of the reports published by the various state Horticultural Societies in the United States. The Nova Scotia Marketing Board, in its report, states that the commercial apple crop in Nova Scotia amounted to 1,665,000 barrels, and that 590,000 barrels had been processed into dried apples, canned apples, vitaminized apple juice, and apple syrup. About five and one-half million pounds of dried apples were processed, 70,000 cases of canned apples, 120,000 cases of fortified apple juice, and an apple syrup was manufactured from the wastes of the drying and canning operations. Exports to the United Kingdom were expected to be 150,000 barrels and perhaps even 200,000 barrels.

Our apple growing neighbors to the north were in a particularly difficult situation when the war upset their normal export trade with the United Kingdom. But they have found numerous new outlets and uses for their fruits, and when the war ends they will be in an excellent position to help supply starved Europe with apples.

H. L. Lantz
SECRETARY

MAKE BIG MONEY
SAWING WOOD NOW

350 Cuts
a Minute



OTTAWA
ONE-MAN TRACTOR SAW

Turn wood lots into cash; help save other fuels to win the war. Use Ottawa—fastest cutting; easiest way. Cuts large and small logs, fells trees. Thousands in use. Built to last with special heavy stiff saw blade. Positive safety clutch control, driven from any power take-off.

OTTAWA MFG. CO., 5532 Forest Ave., Ottawa, Kans.

FREE
BOOK
and
Price List

BORON in AGRICULTURE

For effective control of Boron deficiency diseases, write for a copy of the 1944 revision "Boron in Agriculture." Pacific Coast Borax Company, 51 Madison Avenue, New York 10, New York.



BORAX-BORIC ACID

VICTORY IS OUR BUSINESS



Meeting of the Board of Directors

What is the price of wheat, or hogs, or eggs, or beef, or cotton? What are the prospects of a good crop? How and when is that certain job to be done that must be done as soon as possible? What is the help situation?

Yes, there are many things to talk over when the farm family gets together. For farming is a real business—so like a manufacturing business, for example, where prices, production, "hows" and "whens," manpower, wages and all such problems are also the chief concern of those who must run that business—and make it pay.

As a matter of fact, farming is America's first and most fundamental business. Other

business men know that. And they know that, like their own businesses, farming calls for "get up and go," coupled with brains, ability and willingness to work. When you get right down to it, the farmer's job and the manufacturer's are much alike—with much in common.

That's probably why they have always stood for the American principle that encourages and rewards perseverance, ambition, ability and hard work.

Farming is founded on that. So is manufacturing. So is America.



Every Sunday Afternoon—GENERAL MOTORS SYMPHONY OF THE AIR—NBC Network

GENERAL MOTORS

CHEVROLET • PONTIAC • OLDSMOBILE • BUICK • CADILLAC • FISHER BODY

GMC TRUCK • FRIGIDAIRE

Isn't this account about settled?



Back in 1850, Uncle Sam owned more than 1,400,000,000 acres of land.

Much of it was the Louisiana Purchase—land that cost about 4¢ an acre.

It was wild. It was unsettled. It produced no tax revenue.

Because it had no transportation.

To help get railroads built into this undeveloped territory, Uncle Sam turned over to them 130 million acres of these lands.

In return, most government traffic received special rates—50% off.

And ever since, year in and year out, the government has received this advantage. Not alone from the few railroads (9% of the mileage) which received land grants, but from the others competing with them.

Railroads opened up new frontiers.

Settlers followed the advancing rails. All land values multiplied. Tax revenues vastly increased. Agriculture developed. States and cities grew. The nation knit together.

Through the years, the value of the land grants has been repaid many, many times—while the continuance of these deductions discriminates in favor of shippers doing business with the government who can take advantage of such rates as against other shippers who cannot.

That's why shippers, farmers, the Interstate Commerce Commission, the Office of Defense Transportation, and the National Association of Railroad and Utilities Commissioners join with transportation agencies in seeking to do away with these land-grant deductions.



If you would like to know more about Land-Grant Rates than we can tell in this advertisement, we will send you free a comprehensive booklet about them. Just send this coupon to Association of American Railroads, Transportation Bldg., Washington 6, D. C.

NAME _____

ADDRESS _____

STATE NEWS

(Continued from page 16)

ILLINOIS—By the middle of April apple buds were very backward and little spraying for scab had been done because of rainy and cold weather. However, prospects for bloom were heavy in some orchards on some varieties, especially where the crop was light last year. In general, prospects are better than they were last year.

Peach damage in extreme southern Illinois, especially on low lands, was severe. In the Carmi-Centralia region it appears that there will be a full crop of peaches and apples. In the Calhoun section the peach crop was frozen out in February but the apple crop promises to be good.—C. C. MAST, Sec'y, Quincy.

MONTANA—More care is being given to orchards this year than has been given to them in a number of years and the crop is expected to be better than average.

Tree conditions and fruit spurs in the sweet cherry district indicate an excellent crop. In fact, the largest crop of sweet cherries in the State's history is expected and, as the trees are all young, there should be a considerable increase in production from year to year.

Apple orchards by the middle of April were in fair condition and small fruits promised at least a fair crop.—GEO. L. KNIGHT, Montana.

NEW YORK—Fruit buds in New York were held back during April by low temperatures. Apples, pears and cherries seem to be fairly well budded and expectations are for somewhat larger crops than last year.

Practically no spraying had been done in western New York by the middle of April, although growers were waiting for the first warm day to start.

OPA and WFA called together members of the Industry Advisory Committees from this State to confer on prunes, pears, cherries, and peaches.

Labor camps are being set up to house help during the peak seasons. German prisoners of war and Jamaicans are expected to furnish the principal sources of labor. Nevertheless, farmers and fruit growers expect critical labor shortages in the fruit and vegetable areas of the state.—HORACE M. PUTNAM, Asst. Sec'y, LYONS.

• BOOK REVIEW •

"Modern Farmers' Cyclopedia of Agriculture" (Price \$4.50) by Earley Vernon Wilcox is an excellent book of its type. It has 497 well printed pages with headlines that carry the eye immediately to the subject sought. There are 175 pages devoted to fruits and nuts. Five pages are devoted to bees and six pages to peaches. There are a few obvious mistakes where he says that 2½ million pounds of coffee are imported in the U.S. each year. Evidently he means bags. But for the general reader or for reference, the book is first rate.

"The Apple" by Walter Jack is a delightfully sentimental story of the apple in American life. Most interesting are photographs of ads of a century ago showing apple peelers, cider mills and other gadgets connected with apple culture. The book is printed with the compliments of the Friend Manufacturing Company of Gasport, N.Y., manufacturers of sprayers, pumps, fruit sizers, etc.

Editor's note: Books reviewed here may be obtained by writing the American Fruit Grower, 1370 Ontario Street, Cleveland 13, Ohio.



When he steps out of this line...

Earl Blumstein

Your bonds mean weapons today...jobs tomorrow

Today he's facing the biggest job any young man ever tackled. The rest of us must back him up with everything we've got.

That not only means buying bonds to pay for the things he's fighting *with*—the guns, planes, ships and tanks that industry is turning out night and day. It also means buying bonds to protect the things he's fighting *for*:

1. *Peace of Mind while he's away:* Your war bond investment fights inflation by keeping extra money out of circulation and thereby helps to keep prices down.
2. *A job when he gets back:* Your war bond investment builds purchasing power—your purchasing power—for the products that industry must have a market for after the war if it is to provide peacetime jobs for both veterans and war workers...

Yes, your war bonds are an investment—in *his* present and future as well as *yours*. If *you* buy enough of them, he can't lose and neither can you...

...will there be a place in this one?



Nickel, too, means weapons today...jobs tomorrow

Today, Nickel is helping industry provide planes that can take it, tanks that are tough, ships that cover the Seven Seas. It is putting extra fight into the alloys that are the heart of these and other weapons.

One day Nickel will be turned again to its peacetime purpose; it will join hands with steel and other metals to improve the products that serve men and provide jobs.

Nickel will be better prepared than ever to help industry produce the homes, the cars, tractors, washing machines and other metal-containing products needed to rebuild and replenish a war-torn world—just as Nickel's technical staff is prepared to help manufacturers now with their metal problems.

The International *NICKEL* Company, Inc.
New York, N. Y.

World's largest miners, smelters and refiners of Nickel and Platinum metals... producers of MONEL and other high-Nickel alloys

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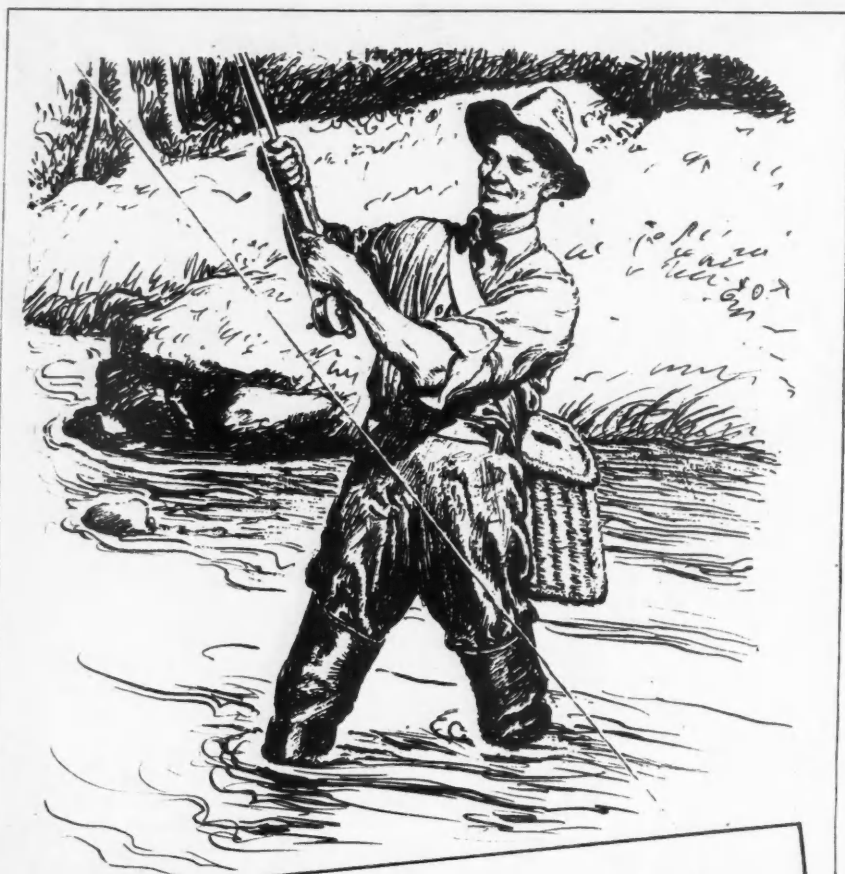
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*"Are the fish still biting
in Seward's Creek?"*

● "Are the trout still biting in Seward's Creek? . . . Is Jimmy keeping the rowboat caulked? . . . Have they played the ball game with Meadville yet?"

These are the things he thinks about, the questions that he asks whenever he sits down to write a letter—from England, or Burma, or the South Pacific.

For these are the little things that to a soldier—as to all of us—add up to "home." These are the simple pleasures he looks forward to returning to.

It happens that to many these small pleasures may include a glass of beer occasionally—as a beverage of moderation after a hard day's work . . . enjoyed with friends or with a home-cooked meal.

A glass of beer—not of crucial importance, surely . . . yet it is little things like this that help mean home to all of us, that do so much to build morale—ours and his.



Morale is a lot of little things

MERCHANDISING

(Continued from page 11)

the most desirable features. Fruits and vegetables require proper handling at the right time for many are more perishable and more easily damaged than eggs.

"Since quality and freshness come first, our job with clerks and managers begins when the fruits and vegetables arrive at the store. Careful inspection is made to remove any sub-quality merchandise and prices on it are reduced drastically so that fruit will sell while it is still fresh and usable. The remaining merchandise must be properly conditioned and displayed for color contrast, accessibility, proper rotation for freshness, all of which add to sales appeal.

"Many dollars are invested in training store employees to handle fruits and vegetables properly. Clerks learn through instruction and by actually handling the merchandise, conditioning and display. This insures the housewife merchandise while fresh with the natural appealing flavor. Clerks have demonstrated their appreciation of the helpful training by better performance on the job and through reduced clerk turnover."

In addition to trained personnel, certain promotion plans are followed to move larger quantities of fruits and vegetables. These include, according to Mr. Atchison, mass displays, store banners and cards, pound selling, self-service, consumer packages where practical, color contrasts in displays, accessibility to the customer, and maintenance of fresh appearance, all emphasized in the training program. Suggested uses and recipes for fruits and home canning guides are other sales aids. These are placed beside the merchandise.

Something new has been added in quality fruits in recent years. This is ripening or displaying when the fruits are edible. Ready ripe winter pears, firm ripe peaches, and ripened bananas are good examples, as well as vine ripened melons and tomatoes in the vegetable field. Kroger pear sales stepped up more than 100 per cent when this fruit was displayed ripe enough to eat and displayed on racks so that each pear was fully visible.

Last year an experiment was made with Illinois peaches in St. Louis and it was found that the housewife takes a firm ripe peach every time in preference to a green fruit. The problem now is to find the proper package to minimize bruising and to

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find out how to handle such fruit to keep down losses in transit. This year in Michigan pre-cooling as well as different packages to determine the best means for handling these, riper peaches will be tried.

The grower's responsibility carries through to this consumer and the retailer, likewise, studies her likes and dislikes. First, a quality product is needed for maximum consumption, and then it must be presented before the buyer in all its original glory by trained personnel.

That such modern merchandising is effective can be proved by a few examples of recent sales events. Last fall this country had a record potato crop and the War Food Administration asked all retailers to help move this food. Our sales in a four-week period immediately after digging time increased 128 per cent over those of the same period the previous year. In a recent apple campaign we stepped up apple sales 27 per cent, and in the record peach year of 1942 we moved about 90 per cent more of the southern crop than we sold in the previous season. Many an individual store, by the combination of quality fruit, mass displays, banners and store cards, and trained personnel, has doubled its sales.

ORCHARD MANAGEMENT

(Continued from page 13)

as those which were not girdled. The permanent trees were never girdled. Details of the girdling work are fully reported in Experiment Station Bulletin 290.

By 1932 the fillers were beginning to crowd the permanent trees and they were all removed, leaving the standard 40 x 40 permanent orchard. The yield records reported here represent the production on this lot of trees, and since 1932 the trees have been handled in a manner similar to any ordinary commercial orchard. The pruning has not been heavy, but heavy enough to permit sunlight and sprays to reach all branches. Some branch breakage has taken place under heavy cropping.

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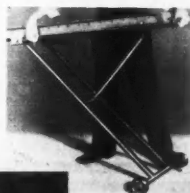
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FRICK CO.
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PEACH CROP

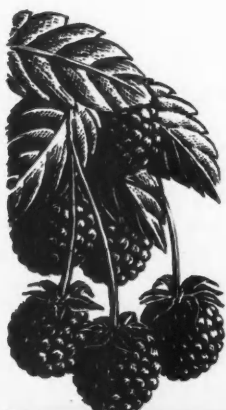
(Continued from page 9)

coming more and more exacting in buying peaches. Riper picking should be reviewed in the light of some co-operative consumer acceptance studies made by the Illinois Station last year. This study was organized as follows:

Peaches of the three stages of maturity briefly described above as "green" or "immature," "firm ripe," and "tree ripe," were taken from the grader and put in separate baskets. These different lots were put on sale at the same time in selected stores in St. Louis. Sometimes the different lots were priced the same in order to determine consumer preference for maturity when price was not a factor. At other times the price was varied to see how much more people would pay for ripe peaches. Summarized very briefly, the story is about like this: Mr. Walter W. Ochse, reporting for the A & P stores, says, "Without exception the 'tree ripe' peaches were gone from the stores before more than a few pounds of the next stage of ripeness received attention from the consumers." Mr. Lawrence Drake, reporting on the experiments in eight Kroger stores in the St. Louis area, says that the sales in these stores "indicate a definite customer preference for tree-ripened peaches." One of the most unpredictable points which came out of these experiments was that the loss in the stores was less from the tree-ripened peaches than from the green picked lot.

Unfortunately with the peach we have not gone as far with some of our operations as has been possible. By this I mean that we are pruning, thinning and picking by the same hand operations we always used. The procedure in the packing shed has been lightened quite a bit by the use of modern equipment, transportation has been stepped up and all that, but unfortunately picking is still the bottle neck which we will find most difficult to meet under present circumstances. On the other hand, we have made considerable progress in our over-all thinking on the problems of the peach industry. The National Peach Council is made up of forward-looking, experienced, practical men and we have for the first time a set-up which gives peach growing national consideration versus local or regional. The leadership of this group needs the support of the industry. It is the peach against the field and with a big crop as the dominant note in the situation, the handicaps should be met step by step by pruning, thinning and riper picking.

CONTINUING A BEAUTIFUL FRIENDSHIP



Through the years, America's fruit growers have found in Ice Cream an important outlet for great quantities of fruits of many kinds.

Ice Cream, a favorite of young and old, is widely used in the armed services, where it is recognized as an important and nutritious dairy food, and enjoyed by all branches of the service.

The "beautiful friendship" of fruit with Ice Cream will grow in the postwar period, when people can again have all the Ice Cream they want and need for health—and when the Ice Cream industry will provide an even greater market for the fruits of garden, orchard and vineyard.

THE INTERNATIONAL ASSOCIATION OF
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Here's a Better Way to Control



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Copper Hydro, a "fixed" copper fungicide, has been tested and proved by several State Experimental Stations. It is safe and easy to use—saves time and labor. Won't clog nozzles or screens. Combines with other spray materials.

You'll get bigger cherries and healthier trees with Copper Hydro. You can do it with only 2 pounds per 100 gallons of spray! For Apple Scab control you need only 1 pound of Copper Hydro per 100 gallons.

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FRUIT BY AIR

REPORTS given at the famous Air Cargo Luncheon in Detroit last month answered a number of questions American fruit growers and other potential shippers by air have been asking, left several significant ones unanswered. An additional report by the Association of American Railroads, released at the same time, shed further light on what the airplane has done and can do in the matter of moving cargo. Here are some pertinent statistics on what has been done.

- 1—The ratio of air express revenue in 1942 to that of rail express was 3.5 per cent.
- 2—Present rate of air express per ton-mile is 47½¢ airport to airport. Express charges bring total costs per ton-mile to 69¢.
- 3—Total air express revenues since 1927 have been \$32,831,338. Of this sum \$9,547,923 has been retained by Railway Express for handling charges.
- 4—Average haul of air express in 1942 was 1,081 miles.

The above are facts. There is no dispute about these figures. What future costs will be is the subject of much dispute. Dr. E. P. Warner, vice chairman of the Civil Aeronautics Board, looks to immediate savings of 15 per cent in the postwar period, and calculates a base airline cost for air express of 14 cents per ton-mile, airport to airport. He doesn't attempt to estimate the additional cost of door to door service. But total costs at any rate would be considerably higher than the 15 cents per ton-mile estimated at the Air Cargo Luncheon as the minimum at which any substantial amount of fresh fruits and vegetables would move by air.

Anticipated ton-mile figures for fruit were: at 3¢—2,078,136,000; at 5¢—272,261,000; at 7¢—90,154,000; at 10¢—24,806,000; and at 15¢—3,765,000. At the seven-cent rate, the point at which the potential cargo reaches respectable proportions, the finding reveal that strawberries, raspberries, cherries, and peaches will take to the air in considerable quantities, together with lesser amounts of pineapples, cantaloupes, avocados, and apricots.

Left unanswered at the luncheon were two significant questions:

- 1—How well will fruits stand up under the actual test of transportation by air?
- 2—How heavily and in what manner will the U.S. government subsidize air transportation as an aid to postwar national defense?

Experiments are already under way to determine the answer to the first of these questions. There is no reason why special problems that come up cannot be solved. The problem of refrigeration, for example, may be largely eliminated by airplane, due to speed of movement and the colder air in which planes usually fly. But only substantial tests with different fruits in different areas and seasons will supply the working charts fruit growers and merchants need.

While too many unknown factors regarding air transportation subsidies were involved to permit treatment at the Detroit meeting, significant developments are probably not far over the horizon. No one can say with much assurance now what the need for American armaments will be once the war is over, but it is a conservative guess that they will be vast. A recent survey by the Guaranty Trust Company of New York estimates our peacetime air force at 24,000 planes that will require replacements of 6,000 a year.

While this is small compared with present wartime numbers, in the aggregate it is immense. Including large fleets of heavy bombers, an average of five crew men per plane would seem probable. This would mean 120,000 flyers plus many more highly trained ground technicians. To render a public service as well as to keep them in training form, a portion of this force might be loaned part time for mail and cargo transportation. While reducing its own cargo carriers to the minimum, the Congress might vote the additional financing necessary to maintain otherwise uneconomical cargo carriers to guarantee that such fleets would be available should war break out. There are many others forms that subsidy could take.

While farmers watch the rapid evolutions of this new form of transportation with intense interest, all fruit figuratively is being grown in Missouri. Growers are waiting to be shown. But when the planes are available they will have the fruit to fill them. Right now they see nothing but the steamer, the truck and the boxcar.

Their attitude towards Col. Edward S. Evans' Air Cargo Research Foundation is not unlike that of the dusky Harlem wife who caught her husband red-handed in the act of adultery. Still protesting his innocence, however, he pleaded: "Does you believe your honey or does you believe your eyes?" Like

the dusky bride, fruit growers will believe their eyes. But they won't go to sleep.

LITTLE PRISON LABOR

Basic Factors In Assessing the Farm Labor Outlook Are These . . .

1—Draft situation will not be basically altered this spring or summer.

2—War prison labor will not be available for the general grower.

3—Some 90,000 Japs—all ages and sexes—are available but prejudice against them will prevent general use.

4—Mexican and West Indian laborers will appear in larger numbers.

Early prisoners were largely Italians. These required few guards, made good farm laborers. New prisoners are Germans. These can't be used in units smaller than 300, and only 35 miles away from camps.

Japs have been given a clean bill of health by FBI. Government wants them employed to save cost of feeding them. But public sentiment will prevent it. New Jersey farmer tried employing them, but neighbors raised so much fuss he had to dismiss them.

Fear of Japs as permanent neighbors prompts opposition. Feeling against them in California is so bitter that few expect to go back after war. Hence, where they first work will be where they will settle.

Many West Indians are seeking the higher wages American farmers pay. This help is not too efficient at best. Mexicans, too, are seeking better American pay, but West and Southwest will get the most of them. Average fruit grower must shift for himself along same pattern of past two years. Longer hours for whole family is only sure solution.

CHECKING LAND BOOMS

The March "Survey of Current Business" of the U. S. Department of Agriculture carries an exhaustive study of rising land prices. Graphs show that present trends approximate those of the 1915-19 period much too closely for comfort. Prices have not yet reached the run-away stage, but they seem headed in that direction unless measures are taken to control them.

But what methods of control are to be employed? Super-taxes on speculative gains have been suggested, and this approach is receiving increasing support. Credit controls could keep mortgage loans within proper limits. Taxes on land sales would have a retarding effect. Some even suggest buyers' permits and price ceilings.

None of these things are desirable in themselves. They are medicines that farmers as a group do not like to take. But if the disease gets bad enough they will take them.



HELP YOUR COMMUNITY DRIVES .. and You Help America

In Colonial days when a family faced misfortune, kindly neighbors set up a melting pot before the door. The community was quick to contribute, because lean and perilous years taught our forefathers that only by helping one another could all survive and earn security in a land of growing opportunities.

Today, when this hard-won security is in

jeopardy, our country and many of its citizens need a helping hand. The Red Cross, the War Chest, the scrap and salvage drives and other calls on each community are realistic reminders of the pioneer spirit that bound our nation together . . . that gave us the highest standard of living the world has ever known. When we help our neighbors we help our country.

In every community, Budweiser is known as the Perfect Host to a host of friends. To serve your neighbors beer is simple hospitality, but to serve them Budweiser is a gracious compliment . . . and, it makes your simple wartime meals taste better.



In addition to supplying the armed forces with glider and bomber fuselage frames, wing parts, gun turret parts and foodstuffs, Anheuser-Busch produces materials which go into the manufacture of: Rubber • Aluminum • Munitions • Medicines B Complex Vitamins • Hospital Diets • Baby Foods • Bread and other Bakery products • Vitamin-fortified cattle feeds • Batteries • Paper Soap and textiles—to name a few.

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SUPPOSE
Your Fruit Crop
IS A
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What can you do? Just look out the window—watch the hail-stones as they riddle the growing fruit—and wonder how much you'll have left, if anything. How helpless you are when the Hail Demon hurls himself at you!

After the storm you go out to survey the damage. If properly insured, there's still hope in your heart—because you know that your investment in time and money is not lost even though the

ground is littered with fruit.

But if you're *not* insured, the season's prospects look as black as the cloud that spilled ruin upon you.

Why take such chances? Why not enjoy the security that a hail insurance policy in one of the capital stock companies named below will bring you?

No section of the country is immune from hail. It destroys growing crops to such an extent that the

LOSSES AMOUNT TO 100 MILLION DOLLARS A YEAR!

And it may be your turn this year. The following companies have paid out more than 20 million dollars for losses on growing crops. Their risks are so widely distributed that local losses cannot hurt them as a local loss would hurt you. Invest *this season* in the sound protection that means absolute reimbursement for crop loss or damage on the basis of the policy contract.

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